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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/463,801

Filed: January 27, 2000

For: MEDIUM FOR PRODUCING AND/OR TREATING ALCOHOLIC BEVERAGES, ESPECIALLY WINE OR SPARAKLING WINE, AS WELL AS ITS APPLICATIONS

Inventor: Holger Lowe
Rainer Pommersheim

Atty Doc. No.: 678-99

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Post Office as first class mail postage prepaid in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on September 8, 2000.

John F. McNulty, Reg. No. 23,028
Dated: September 8, 2000

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International Division

COVER LETTER WITH CERTIFICATE OF MAILING

Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

Enclosed and attached hereto are the following documents:

(1) Supplemental Information Disclosure Statement with attachments;
(2) PTO form 1449;
(3) Cover Letter with Certificate of Mailing (duplicate), and
(4) Paul & Paul postcard to be returned by PTO.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES ASSOCIATED WITH THIS COMMUNICATION, OR CREDIT ANY OVERPAYMENT, TO PAUL & PAUL DEPOSIT ACCOUNT NO. 16-0750, ORDER NO. 3956

Respectfully submitted,

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In the interest of full disclosure, the following items are herewith identified in Form PTO-1449 and a copy of the same is hereby provided, for the convenience of the U.S. Patent and Trademark Office.

Copies of the two cited Japanese references and all of the Other Publications are provided herewith. Copies of the German patents were provided with the Information Disclosure Statement filed on July 28, 2000.

This Supplemental Information Disclosure Statement is being filed before the mailing date of the first official action.

FOREIGN PATENTS

(AL) **Japanese Application 61-100186 A,** dated September 24, 1985. Cited as category "Y" in the German Search Report. See attached English translation of the Abstract

(AM) **Japanese Application 62-158485 A**, dated December 25, 1987. Cited as category "Y" in the German Search Report. See attached English translation of the Abstract.

(AN) **German Patent No. DD 296 840**, dated December 19, 1991. Cited as category "A" in the International Search Report. Oral drugs are coated with layers comprising pectin, alginin, microcryst. Cellulose, cellulose derivatives, poly(styrene-maleic acid), etc. The coat dissolves in the large intestine. The drugs also contain surfactants for absorption enhancement. Pellets comprising 25% muramyl dipeptide and 20% Brij 30 were coated with a solution of microcryst. Cellulose 4,ethylcellulose 50, di-Bu phthalate 20, and 1,2-propanediol in a mixture of 550 mL iso-PrOH and 500 mL EtOH. The pellets were filled into gelatin capsules and supplied with a gastric juice-resistant coat.

(AO) **German Patent No. 297 06 379 U1**, dated April 10, 1997. Cited as category "Y" in the German Search Report. A fluid flows through an assembly employed for photochemical, photocatalytic and light-induced processes, and for the cultivation of phototropic organisms and cell cultures requiring exposure to light. Gas can also be introduced into and bled from the assembly. The novelty is that: (a) the assembly consists of a series of single-piece extruded board-like modules, each of which incorporates numerous stacked and parallel passages, the inlets and outlets of which funnel into a liquid distributor or collector respectively; (b) the cross-sectional geometry of the passages facilitates uniform flow through them all; (c) the cross-sectional area of the liquid distributor (inlet) reduces in the direction of flow, while the liquid collector (outlet) increases in cross-sectional area in the direction of flow, and (d) perforated pressure compensation baffles are located between the passages and the liquid collector, and the perforations are of different sizes. The assembly provides a reactor chamber for photochemical, photo-catalytic and light-induced processes, and for the cultivation of phototropic organisms and cell cultures requiring exposure to light. The assembly is suitable for use on an industrial scale, minimizes the energy requirement and cost of fabrication.

(AP) **German Patent No. 39 26 609 A1**, dated August 11, 1989. Cited as category "Y" in the German Search Report. A completely continuous process for reacting a substrate solution on an immobilized biocatalyst is

described. For this purpose, the substrate solution is reacted on the catalyst with enzyme activity in a tubular reactor, the catalyst migrating along the tubular reactor, through which the substrate solution flows, in such a way that an activity profile which is essentially constant with time is maintained along this tubular reactor. This process makes it possible to maintain a substantially constant space velocity of the substrate solution and a uniform product flow with essentially constant degree of conversion.

(AQ) **European Patent No. 0 508 344 A2**, dated October 14, 1992. Cited as category "Y" in the German Search Report. Alcohol-free beer is obtained by continuous fermentation in a fluidized bed reactor using yeast grown on open-pore sintered glass supports of particle size. The yeast cells grown on the support are cultured in particular in a start-up phase in the fluidized bed reactor by inoculation with yeast concentrate at 20-30° C, in particular around 30° C, and residence times below the generation time of the yeast over a few days. The bed volume of the particulate material in the fluidized bed reactor is, in particular, 25-30% of the working volume and the fluidized bed volume is 40-60% of the working volume. Gauge pressures of 0.5-3 bar are preferred.

OTHER PUBLICATION

(AR) **Luders, Jutta: technologie mit Immobilisierten Hefen. In: Brauwelt 3/1994, S. 57-62**. Cited as category "Y" in the German Search Report. A review with 18 references on immobilized yeasts, describing the advantages of immobilization, the different methods, the nutrient transport in porous carriers, as well as the different types of reactors. Moreover the application in brewery technology, including beer maturation, fermentation and manufacture of low alcohol bears, is discussed.

(AS) **Buschkiel, D., u.a.: Biologischer Saureabbau in Wein. In: BIOforum 1-2/94, S. 3-8.** Cited as category "Y" in the German Search Report. See copy of English language Summary attached hereto.

(AT) **Ariga, Osamu, et al: Encapsulation of Biocatalyst with PVA Capsules. In: Journal of Fermentation and Bioengineering, Vol. 78, No. 1, 1994, S. 74-78.** Cited as category "Y" in the German Search Report.

(AU) **Mansfeld, J., et al: Immbilization of Invertase by Encapsulation in Polyelectrolyte Compleses In: Enzyme Microb. Technol., 1991, Vol. 13, March, S. 240-244**. Cited as category "Y" in the German Search Report.

(AV) **Mansfeld, J., et al: Coimmobilization of Yarrowia Lipolytica Cells and Invertase in Plyelectrolyte Complex Microcapsules In: Enzyme Microb. Technol., 1995, Vol. 17, Jan., S. 11-17.** Cited as category "Y" in the German Search Report.

(AW) **Sefuca, Vladimir, et al: Polyelectrolyte Complex Capsules as A Material for Enzyme Immobilization In: Applice Biochemistry and Biotechnology, Vol. 30, 1991, S. 313-324.** Cited as category "Y" in the German Search Report.

Respectfully submitted,

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INFORMATION DISCLOSURE CITATION *(Use several sheets if necessary)*	Docket Number (Optional) [redacted]8-99	Application Number 09/463,801
	Applicant(s) Holger Lowe	
	Filing Date January 27, 2000	Group Art Unit

OIPE JC135 SEP 14 2000 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	Translation NO
	AL	61-100186A	9/24/85	Japan				
	AM	62-158485	12/25/87	Japan				

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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*EXAMINER INITIAL		OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*
	AR	Luders, Jutta: technologie mit Immobilisierten Hefen. In: Brauwelt 3/1994, S. 57-62.
	AS	Buschkiel, D., u.a.: Biologischer Saureabbau in Wein. In: BIOforum 1-2/94, S. 3-8.
	AT	Ariga, Osamu, et al: Encapsulation of Biocatalyst with PVA Capsules. In: Journal of Fermentation and Bioengineering, Vol. 78, No. 1, 1994, S. 74-78.
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